

PATENT COOPERATION TREATY

From the:
INTERNATIONAL SEARCHING AUTHORITY

To:

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605 Darling Street
BALMAIN NSW 2041

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year) **22 SEP 2004**

Applicant's or agent's file reference
119122

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/AU2004/001020

International filing date (day/month/year)
30 July 2004

Priority date (day/month/year)
1 August 2003

International Patent Classification (IPC) or both national classification and IPC
Int. Cl. ⁷ H04R 17/00; G01S 15/00

Applicant

SONARTECH ATLAS PTY LTD et al

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/AU2004/001020

Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/AU2004/001020

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	NONE	YES
	Claims	1-13	NO
Inventive step (IS)	Claims	NONE	YES
	Claims	1-13	NO
Industrial applicability (IA)	Claims	1-13	YES
	Claims	NONE	NO

2. Citations and explanations:

Reference is made to the following document cited in the Australian ISR:

D1 US 5373483 A (BURKE) 13 December 1994

Novelty (N) and Inventive Step (IS) claims 1-13:

D1, like the current application, is directed to a method of improving the directional characteristics of under water sonar antennas. D1 clearly discloses a sonar antenna comprising an axially symmetric acoustic surface having the cross-sectional form of a generally U shaped curve; wherein the curve is shaped to allow continuous ensonification such that the power in the echo returned from a flat uniform sea floor is substantially constant. I refer you to the following sections which clearly disclose these features:

- column 5 lines 11-44
- Figs. 3, 7, 9 & 13

Therefore D1 discloses all the features of the aforementioned claims and as such claims 1-13 are considered not novel or inventive.

Industrial Applicability (IA) claims 1-13:

Claims 1-13 relate to a sonar antenna for measuring echoes in an underwater environment and as such considered industrially applicable.